

## Message Text

LIMITED OFFICIAL USE

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ACTION OES-07

INFO OCT-01 EUR-12 ISO-00 FEA-01 ACDA-07 CIAE-00  
INR-07 IO-13 L-03 NSAE-00 NSC-05 EB-08 NRC-05  
DODE-00 ERDA-05 SS-15 SP-02 PM-05 /096 W  
-----052888 051001Z /21  
R 050925Z OCT 77  
FM AMEMBASSY PARIS  
TO SECSTATE WASHDC 9825  
INFO AMEMBASSY BRUSSELS

LIMITED OFFICIAL USE SECTION 01 OF 02 PARIS 29196

USEEC

E.O. 11652: N/A  
TAGS: TECH, PARM, FR  
SUBJECT: USE OF HIGHLY ENRICHED URANIUM(93 PERCENT) IN  
FRENCH RESEARCH REACTORS

REF: (A) STATE 225235; (B) PARIS 13619

1. IN RESPONSE TO THE QUESTIONS PRESENTED IN REFTEL A,  
PARA 2, CEA HAS PROVIDED THE FOLLOWING (KEYED TO  
REFTEL QUESTIONS).
2. QUESTIONS A & B. EL3 IS AN 18MWTH REACTOR  
WHICH STARTED OPERATION IN SACLAY IN 1957 AND WILL BE  
CLOSED DOWN IN 1978. IT WAS DESIGNED FOR TECHNOLOGICAL  
STUDIES AND FUNDAMENTAL RESEARCH.

IT WILL BE REPLACED BY EL'3 - ALSO CALLED ORPHEE -  
A 14 MWTH REACTOR, WHICH IS BEING BUILT AT SACLAY AND  
SHOULD BE OPERATIONAL IN 1978. ITS PURPOSE IS THE  
PRODUCTION OF NEUTRONS BEAMS FOR FUNDAMENTAL  
RESEARCH ONLY. THIS REACTOR BURN-UP WILL CERTAINLY BE  
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WEAKER THAN THAT REACHED IN EL3.

AS THE CHART (NOTED IN REFTEL B) SHOWS, THE  
25.760 KGS OF URANIUM ARE FOR THIS LATTER REACTOR:  
ORPHEE.

3. QUESTION D. CEA DOES NOT EXPECT TO USE URANIUM

ENRICHED AT LESS THAN 20 PERCENT IN THE TRITON REACTOR.  
THE CHART (REF B) MENTIONS USE OF LESS ENRICHED  
URANIUM FOR THE TWO REACTORS: OSIRIS AND SILOE.

4. QUESTIONS C & E. CEA HOPES TO USE URANIUM  
ENRICHED AT LESS THAN 20 PERCENT IN THE TWO REACTORS,  
SILOE IN 1980 AND OSIRIS IN 1981 (NOT 1979). RECENTLY,  
THERE HAVE BEEN CUTS IN BUDGETARY EXPENDITURES,  
WHICH MAY DELAY STUDIES ON NEW FUELS AND HAVE AN EFFECT  
UPON THE DATE WHEN LOWER ENRICHED URANIUM COULD BE  
USED. IN ANY CASE, STUDIES ON COMBUSTIBLES WITH  
URANIUM ENRICHED AT LESS THAN 20 PERCENT ARE NOT  
SUFFICIENTLY ADVANCED TO MAKE CEA CERTAIN THAT THE  
LOWER ENRICHED FUELS CAN BE USED UNDER SATISFACTORY  
CONDITIONS AT THE EXPECTED DATE. ORDERS FOR HIGHLY  
ENRICHED URANIUM WHICH HAVE BEEN PLACED WITH ERDA  
(120.180 KGS FOR OSIRIS) REPRESENT A SENSIBLE EVALUA-  
TION WHICH, HOWEVER, CAN BE REVIEWED AGAIN IF  
DIFFICULTIES OR UNEXPECTED OBSTACLES ARISE FROM  
CURRENT RESEARCH ON NEW FUELS. NOTE THAT CEA PLACED  
NO ORDER FOR SILOE. THE 86.844 KGS ARE FOR MELUSINE.

5. QUESTION F. REGARDING RAPSODIE, FUEL FABRICATION  
IS DONE IN A BATCH PROCESS PRODUCING ELEMENTS  
NECESSARY FOR THE RUNNING OF THE REACTOR FOR TWO YEARS.  
THEREFORE, ORDERS FOR URANIUM REPRESENT NOT ANNUAL  
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NEEDS BUT THE CONSUMPTION FOR TWO YEARS. NOTE THAT

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ACTION OES-07

INFO OCT-01 EUR-12 ISO-00 FEA-01 ACDA-07 CIAE-00

INR-07 IO-13 L-03 NSAE-00 NSC-05 EB-08 NRC-05

DODE-00 ERDA-05 SS-15 SP-02 PM-05 /096 W

-----052972 051001Z /21

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FM AMEMBASSY PARIS  
TO SECSTATE WASHDC 9826  
INFO AMEMBASSY BRUSSELS

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ON THE CHART (REF B) DELIVERY IS EXPECTED IN 1978,  
NONE IN 1979, ONE IN 1980, NONE IN 1981, AND ONE IN  
1982.

6. COMMENT. CEA HAS ORDERED THE ENRICHED URANIUM IN  
CONFORMANCE WITH ITS OBLIGATIONS OF THE ERDA-COGEMA  
CONTRACT, WHICH PROVIDES FOR PENALTIES OF UP TO 80  
PERCENT OF THE PRICE OF ENRICHED URANIUM NOT ORDERED  
AND RECEIVED BY COGEMA BEFORE THE END OF 1978. THE  
CONTRACT SPECIFIES A CERTAIN NUMBER OF SWU'S AND THE  
CURRENT CEA/COGEMA ORDER ADDED TO QUANTITIES OF HEU  
ALREADY DELIVERED UNDER THE CONTRACT EXACTLY MEETS  
THAT SPECIFIC NUMBER OF SWU'S. CEA WOULD WELCOME A  
POSTPONEMENT IN THE TERM OF THE CONTRACT WHICH WOULD  
PERMIT ORDERS TO BE PLACED FURTHER IN THE FUTURE,  
MORE CLOSELY MEETING THE OPERATIONAL AND FABRICATION  
NEEDS OF THE FRENCH REACTORS INVOLVED.

7. EMBASSY WOULD WELCOME DEPARTMENT/DEPARTMENT OF  
ENERGY (ERDA) VIEWS ON EXTENDING THE LIFE OF THE  
CONTRACT BETWEEN ERDA AND COGEMA. ALSO ADVISE IF  
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FURTHER INFORMATION IS NECESSARY ON THE MATTERS  
COVERED IN PARA 2-5 ABOVE.  
HARTMAN

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## Message Attributes

**Automatic Decaptioning:** X  
**Capture Date:** 01-Jan-1994 12:00:00 am  
**Channel Indicators:** n/a  
**Current Classification:** UNCLASSIFIED  
**Concepts:** URANIUM, RESEARCH, NUCLEAR REACTORS  
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**Copy:** SINGLE  
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**Decaption Date:** 01-Jan-1960 12:00:00 am  
**Decaption Note:**  
**Disposition Action:** RELEASED  
**Disposition Approved on Date:**  
**Disposition Case Number:** n/a  
**Disposition Comment:** 25 YEAR REVIEW  
**Disposition Date:** 22 May 2009  
**Disposition Event:**  
**Disposition History:** n/a  
**Disposition Reason:**  
**Disposition Remarks:**  
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**Document Unique ID:** 00  
**Drafter:** n/a  
**Enclosure:** n/a  
**Executive Order:** N/A  
**Errors:** N/A  
**Expiration:**  
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**Office:** ACTION OES  
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**Original Handling Restrictions:** n/a  
**Original Previous Classification:** n/a  
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**Reference:** 77 STATE 225235, 77 PARIS 13619  
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**Review Release Event:** n/a  
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**Status:** NATIVE  
**Subject:** USE OF HIGHLY ENRICHED URANIUM(93 PERCENT) IN FRENCH RESEARCH REACTORS  
**TAGS:** TECH, PARM, FR  
**To:** STATE  
**Type:** TE  
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